

CLAIMS

Claim 1 (Currently Amended): A needlestick prevention device for an injection device $[(1)]$ having a hollow needle ~~(2)~~ comprises, comprising: a sheath having a first member $[(9)]$ for attachment to the injection device $[(1)]$ and a second member $[(10)]$ slidable longitudinally relative to the first member $[(9)]$ to expose or to cover the needle $[(2)]$, and spring means ~~(11)~~ biassing ~~biassing~~ the second member $[(10)]$ to cover the needle $[(2)]$, the first and second members ~~(9,10)~~ having interengaging guide means $[(13)]$ and locking means $[(14)]$, characterised in that the guide means $[(13)]$ include a first guide part $[(23)]$ operative to allow free longitudinal sliding movement of the second member $[(10)]$ relative to the first member $[(9)]$, and a second guide part $[(24)]$ operative on movement by manual relative rotation of the first and second members ~~(9,10)~~ and following release of a force urging the second member $[(10)]$ to expose the needle $[(2)]$, in which the spring means $[(11)]$ urges the second member $[(10)]$ to cover the needle $[(2)]$ and to operate the locking means $[(14)]$ to retain the second member $[(10)]$ covering the needle $[(2)]$.

Claim 2 (Currently Amended): A needlestick prevention device according to claim 1, in which the guide means $[(13)]$ comprises at least one groove means $[(15)]$ on one of the first and second members ~~(9,10)~~, and a corresponding projection $[(17)]$ on the other of the members which slides in the groove means $[(15)]$.

Claim 3 (Currently Amended): A needlestick prevention device according to claim 2, in which two groove means $[(15)]$ and projections $[(17)]$ are provided, arranged in diametral opposition.

Claim 4 (Currently Amended): A needlestick prevention device according to ~~any preceding claim,~~ claim 1, in which the second member $[(10)]$ slides inside the first member $[(9)]$.

Claim 5 (Currently Amended): A needlestick prevention device according to ~~claim 4~~ claim 2, in which ~~the~~ or each groove means $[(15)]$ is provided on the

radially exterior surface of the second member $[(10)]$ and ~~the or~~ each projection, $[(17)]$ on the radially interior surface of the first member $[(9)]$.

Claim 6 (Currently Amended): A needlestick prevention device according to ~~any preceding claim,~~ claim 1, in which in ~~the or~~ each guide means $[(13)]$ the first guide part comprises a first groove $[(23)]$ extending longitudinally of the second member $[(10)]$.

Claim 7 (Currently Amended): A needlestick prevention device according to ~~any preceding claim,~~ claim 1, in which the second guide part comprises a second groove $[(24)]$ extending longitudinally of the second member $[(10)]$.

Claim 8 (Currently Amended): A needlestick prevention device according to ~~claim 6 and claim 7,~~ in which the second groove $[(24)]$ is parallel to the first $[(23)]$, and spaced from it such that a relative rotation of 30° of the members ~~(9,10)~~ will move the projection $[(17)]$ from the first groove $[(23)]$ into the second groove $[(24)]$.

Claim 9 (Currently Amended): A needlestick prevention device according to ~~claim 7 or claim 8,~~ in which the locking means comprises a permanent locking recess $[(33)]$ formed as part of the second groove $[(24)]$, in which the projection $[(17)]$ is received.

Claim 10 (Currently Amended): A needlestick prevention device according ~~any of claims 6 to 9,~~ claim 9, in which the first groove $[(23)]$ is provided with a temporary locking recess $[(30)]$ in which the projection $[(17)]$ is received.

Claim 11 (Currently Amended): A needlestick prevention device according to claim 10, in which in the temporary locking position the second member $[(10)]$ is slightly less extended from the first member $[(9)]$ than in the permanent locking position.

Claim 12 (Currently Amended): A needlestick prevention device according to ~~any of claims 2 to 11,~~ claim 2, in which ~~the or~~ each groove means $[(15)]$ has a further longitudinal groove $[(25)]$ with an initial locking recess $[(38)]$.

Claim 13 (Currently Amended): A needlestick prevention device according to ~~any of claims 2 to 12~~, claim 2, in which the grooves ~~(23, 24, 25)~~ and projections ~~[(17)]~~ are so shaped as to allow relative rotation of the first and second members ~~(9, 10)~~ in only one direction.

Claim 14 (Currently Amended): A needlestick prevention device according to claim 13, in which the grooves ~~(23, 24, 25)~~ have one radial wall ~~[(27)]~~ and one curved wall ~~[(28)]~~, with the projections ~~[(17)]~~ being of complementary shape.

Claim 15 (Currently Amended): A needlestick prevention device according to ~~any preceding claim~~, claim 1, in which the spring means comprises a compression spring ~~[(11)]~~ acting between the inner end of the second member ~~[(10)]~~ and an abutment ~~[(44)]~~ on the first member ~~[(9)]~~.

Claim 16 (Currently Amended): A needlestick prevention device according to claim 15, in which the spring ~~[(11)]~~ also provides an additional locking mechanism when the second member ~~[(10)]~~ is in its permanent locking position.

Claim 17 (Currently Amended): A needlestick prevention device according to claim 16, in which the additional locking mechanism comprises an oversize turn ~~[(45)]~~ of the spring ~~[(11)]~~, adapted to be received in a radial groove ~~[(46)]~~ in the first member ~~[(9)]~~ when the second member ~~[(10)]~~ is in its permanent locking position.

Claim 18 (Currently Amended): A needlestick prevention device according to claim 17, in which the spring ~~[(11)]~~ is also arranged so that the oversize turn ~~[(45)]~~ tends to enlarge on relative rotation of the two members ~~(9, 10)~~.

Claim 19 (Currently Amended): A needlestick prevention device according to ~~any preceding claim~~, claim 1, in which the injection device is a syringe ~~[(1)]~~ additionally comprising a barrel ~~[(6)]~~.

Claim 20 (Currently Amended): A needlestick prevention device according to claim 19, in which the first member [(9)] is attached to the syringe [(1)] by a luer slip connection to a hub [(7)] at the forward end of the syringe barrel [(6)].

Claim 21 (Currently Amended): A needlestick prevention device according to claim 19, in which the first member [(9)] is attached to the syringe [(1)] by a luer lock connection to a hub [(7)] at the forward end of the syringe barrel [(6)].